UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

# NOTICE OF ALLOWANCE AND FEE(S) DUE

26263

7590

12/17/2009

SONNENSCHEIN NATH & ROSENTHAL LLP P.O. BOX 061080 WACKER DRIVE STATION, WILLIS TOWER CHICAGO, IL 60606-1080 EXAMINER

JERABEK, KELLY L

ART UNIT PAPER NUMBER

2622

DATE MAILED: 12/17/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.

10/540,765 06/24/2005 Koichi Matsumoto 09792909-6289 9208

TITLE OF INVENTION: SOLID-STATE IMAGE PICKUP DEVICE, METHOD FOR TRANSFERRING CHARGE IN SOLID-STATE IMAGING DEVICE AND METHOD FOR MANUFACTURING SOLID-STATE IMAGING DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	03/17/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

## Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

INSTRUCTIONS; This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where ap in m

appropriate. All further indicated unless correcte maintenance fee notifica	correspondence includir ed below or directed oth	ng the Patent, advance on herwise in Block 1, by (a	rders and notification of n a) specifying a new corres	naintenance fees w pondence address;	vill be and/or	mailed to the current (b) indicating a sepa	correspondence address as rate "FEE ADDRESS" for
		ock 1 for any change of address)	Feet	c) Transmittal Thi	is certif	icate cannot be used f	r domestic mailings of the or any other accompanying nt or formal drawing, must
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P.O. BOX 06108 WACKER DRIV	VE STATION, WIL		I her State addr trans	reby certify that these Postal Service wessed to the Mail mitted to the USP	inicate is Fee( vith suf Stop TO (57	e of Mailing or Trans s) Transmittal is being ficient postage for firs ISSUE FEE address 1) 273-2885, on the d	mission is deposited with the United it class mail in an envelope above, or being facsimile ate indicated below.
CHICAGO, IL 6	00606-1080						(Depositor's name)
							(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/540,765	06/24/2005	•	Koichi Matsumoto		C	9792909-6289	9208
TITLE OF INVENTION DEVICE AND METHO			E, METHOD FOR TRAN MAGING DEVICE	SFERRING CHA	RGE I	N SOLID-STATE II	MAGING
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0		\$1810	03/17/2010
EXAM	INER	ART UNIT	CLASS-SUBCLASS				
JERABEK,	KELLY L	2622	348-273000				
<ol> <li>Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).</li> <li>Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.</li> <li>"Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.</li> </ol>			2. For printing on the patent front page, list  (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,  (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.				
PLEASE NOTE: Unl recordation as set fort (A) NAME OF ASSIG	less an assignee is ident h in 37 CFR 3.11. Comp GNEE	ified below, no assignee pletion of this form is NO	T a substitute for filing an : (B) RESIDENCE: (CITY	ntent. If an assign assignment. and STATE OR C	COUNT	TRY)	ocument has been filed for
Please check the appropr	iate assignee category or	categories (will not be pr	rinted on the patent):	Individual 🖵 Co	orporati	on or other private gro	oup entity 🔲 Government
4a. The following fee(s) are submitted:  ☐ Issue Fee ☐ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Copies			Hb. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)  A check is enclosed.  Payment by credit card. Form PTO-2038 is attached.  The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).				
5. Change in Entity Star	<b>tus</b> (from status indicate s SMALL ENTITY statu	· ·	b. Applicant is no long	ver claiming SMAI	I EN'	FITV status See 37 C	ER 1.27(a)(2)
NOTE: The Issue Fee and	d Publication Fee (if req		d from anyone other than th				e assignee or other party in
				D /			
Authorized Signature  Typed or printed name							
This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to provide the content of the collection of							
an application. Confident submitting the completed this form and/or suggesti	tiality is governed by 35 d application form to the ions for reducing this bu Virginia 22313-1450. DC	U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to th	1.14. This collection is est depending upon the indivite Chief Information Office	imated to take 12 i idual case. Any co r. U.S. Patent and	minutes mment Trader	s to complete, including the son the amount of the mark Office, U.S. Depart	g gathering, preparing, and ne you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,

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10/540,765	06/24/2005	Koichi Matsumoto	09792909-6289	9208
26263 75	90 12/17/2009		EXAM	INER
SONNENSCHEI	N NATH & ROSEN	JERABEK, KELLY L		
P.O. BOX 061080		ART UNIT	PAPER NUMBER	
WACKER DRIVE CHICAGO, IL 606	STATION, WILLIS T 606-1080	2622 DATE MAILED: 12/17/200	9	

# **Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)**

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 721 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 721 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)	
	10/540,765	MATSUMOTO, KOICHI	
Notice of Allowability	Examiner	Art Unit	
	KELLY L. JERABEK	2622	
The MAILING DATE of this communication appe All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	ears on the cover sheet with the (OR REMAINS) CLOSED in this or other appropriate communica GHTS. This application is subjected and MPEP 1308.	ne correspondence address s application. If not included ation will be mailed in due course. THIS	
1. This communication is responsive to <u>Request for Continue</u>	<u>d Examination filed 11/17/2009</u> .		
2. The allowed claim(s) is/are 1-4 and 19-24.			
3. Acknowledgment is made of a claim for foreign priority una)  All b)  Some* c)  None of the:  1. Certified copies of the priority documents have 2. Certified copies of the priority documents have 3. Copies of the certified copies of the priority documents have International Bureau (PCT Rule 17.2(a)).  * Certified copies not received:  Applicant has THREE MONTHS FROM THE "MAILING DATE" on the delow. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	been received.  been received in Application No cuments have been received in the communication to file a received to the communication to file a received to the communication to file a received.	o this national stage application from the	
<ul> <li>4. A SUBSTITUTE OATH OR DECLARATION must be subministry in the part of the policy of the policy including changes required by the Notice of Draftspers  (a) including changes required by the Notice of Draftspers  1) hereto or 2) to Paper No./Mail Date  (b) including changes required by the attached Examiner's Paper No./Mail Date  Paper No./Mail Date  Identifying indicia such as the application number (see 37 CFR 1. each sheet. Replacement sheet(s) should be labeled as such in the deposit of the policy in th</li></ul>	es reason(s) why the oath or dec to be submitted. on's Patent Drawing Review (F s Amendment / Comment or in to .84(c)) should be written on the di the header according to 37 CFR 1.	claration is deficient.  PTO-948) attached  the Office action of  rawings in the front (not the back) of 121(d).  AL must be submitted. Note the	
Attachment(s)  1. Notice of References Cited (PTO-892)  2. Notice of Draftperson's Patent Drawing Review (PTO-948)  3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material  /Kelly L. Jerabek/ Primary Examiner, Art Unit 2622	5.  Notice of Inform 6. Interview Sumn Paper No./Mai 7. Examiner's Am 8. Examiner's Sta 9. Other	nary (PTO-413), I Date	

# **DETAILED ACTION**

### Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/17/2009 has been entered.

## Allowable Subject Matter

Claims 1-4 and 19-24 are allowed.

The following is an examiner's statement of reasons for allowance:

Re claims 1-4, 19, 21 and 23-24, the prior art fails to teach or suggest, "
A solid-state image pickup device comprising: a substrate with a light incident side and a non-light incident side facing away from said light incident side; and a photosensor section provided in said substrate, said photosensor section including a first photosensor particularly sensitive to light of a first wavelength and a second

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Art Unit: 2622

photosensor particularly sensitive to light of a second wavelength which is shorter than the first wavelength, wherein, said first photosensor extends toward said non-light incident side in a depth direction to an extent greater than does said second photosensor, and said first photosensor and said second photosensor do not overlap in the depth direction".

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Re claim 20, the prior art fails to teach or suggest, "A solid-state image pickup device comprising: a substrate with a light incident side and a non-light incident side facing away from said light incident side; a photosensor section provided in said substrate, said photosensor section including a first photosensor particularly sensitive to light of a first wavelength and a second photosensor particularly sensitive to light of a second wavelength which is shorter than the first wavelength, a channel section in said substrate at a location beneath said second photosensor relative to said light incident surface; and a gate for transporting electric charge obtained as a result of a photoelectric conversion process carried out by said first photosensor to said channel section, wherein, said first photosensor extends toward said non-light incident side to an extent greater than does said second photosensor, and said first photosensor is particularly sensitive to a light beam of the red or green color and said second photosensor is particularly sensitive to a light beam of the blue color".

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Re claim 22, the prior art fails to teach or suggest, "A solid-state image pickup device comprising: a substrate with a light incident side and a non-light incident side facing away from said light incident side; a photosensor section provided in said substrate, said photosensor section including a first photosensor particularly sensitive to light of a first wavelength and a second photosensor particularly sensitive to light of a second wavelength which is shorter than the first wavelength, a read gate provided in said substrate and adjacent said second photosensor relative to said light incident surface; and a channel section in said substrate and beneath said second photosensor relative to said light incident surface, wherein, said first photosensor extends toward said non-light incident side to an extent greater than does said second photosensor, and said read gate is effective to transport electric charge from said second photosensor to said channel section".

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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### Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly L. Jerabek whose telephone number is **(571) 272-7312**. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached at **(571) 272-3022**. The fax phone number for submitting <u>all Official communications</u> is **(571) 273-7300**. The fax phone number for submitting <u>informal communications</u> such as drafts, proposed amendments, etc., may be faxed directly to the Examiner at **(571) 273-7312**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kelly L. Jerabek/

Primary Examiner, Art Unit 2622